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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,649	07/14/2003	Steven Robert Hetzler	ARC9-2003-0015-US1	8646

7590	09/05/2007
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EXAMINER	
CHAUDRY, MUJTABA M	

ART UNIT	PAPER NUMBER
2112	

MAIL DATE	DELIVERY MODE
09/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Supplemental  
Notice of Allowability**

Application No.

10/619,649

Examiner

Mujtaba K. Chaudry

Applicant(s)

HETZLER ET AL.

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2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to IDS submitted 8/1/2007.
2. ☒ The allowed claim(s) is/are 1-7, 10-25 and 45-65.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 8/1/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*[Handwritten signature]*  
8/20/07

*[Handwritten signature]*  
JACQUES LOUIS JACQUES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

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### **DETAILED ACTION**

Applicants' response filed July 30, 2007 was received.

- Claims 1-7, 10-25 and 45-65 are reconsidered and remain allowable in view of IDS.
- PTO 1449 is attached.

Application allowed.

### ***Reasons for Allowance***

Claims 1-7, 10-25 and 45-65 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

Independent claim 1 of the present application teaches, for example, a method for increasing failure tolerance of a storage system having a plurality of arrays, each array having a plurality of storage units, the method comprising steps of: selecting a recipient array from the plurality of arrays; selecting a donor array from the plurality of arrays when a difference between a minimum Hamming distance of the donor array and a minimum Hamming distance of recipient array is greater or equal to 2; selecting a donor storage unit in the donor array; and rebuilding at least a portion of lost recipient information from the recipient array on the selected storage unit in the donor array. The prior arts of record including the IDS filed July 30, 2007 do not teach nor fairly suggest the foregoing limitations. Particularly, the prior arts of record do not teach or suggest, “...*selecting a donor array from the plurality of arrays when a difference between a minimum Hamming distance of the donor array and a minimum Hamming distance of recipient array is greater or equal to 2; selecting a donor storage unit in the donor array; and rebuilding at*

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least a portion of lost recipient information from the recipient array on the selected storage unit in the donor array." These limitations are not obvious over the prior arts of record and are believed to be novel.


Independent claim 45 recites similar limitations as those found in claim 1 and therefore is allowable as well.

Dependent claims 2-7, 10-25 and 46-65 depend from independent claims 1 and 45 and inherently include the limitations therein and therefore are allowable as well.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mujtaba K. Chaudry whose telephone number is 571-272-3817. The examiner can normally be reached on Mon-Fri 9-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mujtaba Chaudry  
Art Unit 2112  
August 30, 2007

  
JACQUES LOUIS-JACQUES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100